AUTHOR INDEX

Aarkrog A., 29
Abrol V., 1286
Abu-Jarad F., 1126
Adriano D. C., 261
Agarwal S. K., 915
Ahluwalia B. D., 944
Aissi A., 371
Alberts J. J., 261
Aldrich D. C., 763
Anderson D. W., 944
Anderson V. E., 581
Andrews L. L., 801
Angus M. J., 1095
Appleby A., 417
Archer B. R., 960†
Archer V. E., 706,† 1147†
Archibeque F. A., 639
Arthur W. J. III, 793
Attix F. H., 479†
Atwater H. F., 474
Awschalom M., 407
Azorín N. J., 269

Bächmann K., 1131
Baker G. G., 1013
Balloy J. E., 928
Ban S., 1221
Barish R. J., 464
Bartnik D. L., 275
Beebe G. W., 745
Beentjes L. B., 665
Benedetto A. R., 1141
Bennett B. R., 407
Bergendahl D. L., 684
Berk H. W., 915
Berman E., 537
Bernard S. R., 695
Bhaduri D., 915
Bhide M. G., 1301
Bidasaria H. B., 1101
Bieu J., 933
Biró T., 193
Boeldt E. J., 1313†
Bolch W. E., 684
Bolka B., 1021
Bondietti E. A., 647
Borak T. B., 1053
Bowers E. J., 1159†
Bridgman C. J., 242†
Broda E., 702†
Brodsky A., 1316†
Bross I. D., 952,† 1149†
Bunzl K., 466
Burke R. P., 763
Bushong S. C., 960†

Cabrini R. L., 688
Cadwell L. L., 657, 1136
Calvert R. L., 275
Cannon L. A., 1155†
Carlton J. E., 418
Carson B. H., 1013
Carter H. B., 537
Case A. C., 928
Casey W. R., 123
Cataldo D. A., 657
Cawley C. N., 1154,† 1155†
Chang K.-C., 45
Charalambous S., 293
Chian E. S. K., 45
Christman E. A., 417
Clegg F. G., 244†
Clelland R. C., 1159†
Cline J. F., 1136
Coffey J. L., 418
Cohen B. L., 964,† 1113
Cohn S. H., 511
Colard J., 681, 1096
Commerford S. L., 958†
Conard R. A., 511
Cooke N., 434
Cool D. A., 599
Cooper J. R., 434, 893
Coops A. J., 665
Cothern C. R., 503
Cox M. E., 65
Crawford-Brown D. J., 809, 924
Crawford R. W., 1095
Cristy M., 283
Crocker D. G., 1265
Cross F. T., 205
Cross W. G., 97
Cross W. H., 45
Collings H. M., 951†

Dahlgaard H., 29
Da-Ke W., 1063
Damon E. G., 165, 859
Davis H. G., 315
De Rey B. M., 688
De Santis V., 73
Destman G. L., 209
Dreicer M., 177
Duijsings J. H., 665
Dunning D. E. Jr., 1035
Dunscombe P. B., 939

El-Fawaris A. H., 883
Eiccholz G. G., 483,† 712,† 1321‡
Eidson A. F., 151, 165, 845, 859
Epler G. R., 361
Epperson C. E., 325

Fabrikant J. I., 739
Fernández P. L., 445
Fisenne I. M., 438
Fisher D. R., 1
Fleischer, R. L., 999
Forey J. R., 335
Frankhauser B. L., 65
Fremlin J. H., 1126
Fujimoto K., 1181
Fu-Yin S., 1063

†Indicates Letters to the Editors.
‡Indicates Book Reviews.

GANDSMAN E., 1293
GAN T., 1129
GANT K. S., 211
GARDNER R. H., 481†
GARLAND T. R., 657
GARTEN C. T. JR., 647
GELS G. L., 627
GEORGE A. C., 867
GERBER G. B., 681, 1069
GIES R. A., 928
GITTERMAN M., 617
GLANSHOLM H., 529
GLASGOW G. P., 669
GLASSER F. P., 1095
GOGOLAK C. V., 783
GOLLON P. J., 123
GONZALEZ M. G., 269
GOODHEAD D. T., 237†
GOOGINS S. W., 873
GORANSON S., 1021
GRENIER M., 933
GRIFFITH W. C. JR., 151, 859
GUILMETTE R. A., 639, 845, 859
GUPTON E. D., 217
GUTIÉRREZ C. A., 269

HAALAND C. M., 347
HADLEY R. T., 1
HAHN F. F., 859
HAKONSON T. E., 177
HALE J., 1143
HALFORD D. K., 1259
HAMILTON L. D., 1150†
HAM S. E., 434, 919
HANDL J., 1083
HANKINS D. E., 561
HARLEY J. H., 1311†
HARRISON A., 377
HARRISON J. D., 693
HARRIS S. J., ✠ 1157†
HAYES R. L., 418
HEALY J. W., 839
HEISING C. D., 763
HERMAN M. W., 1314†
HERNANDEZ T. L., 440
HICKEY R. J., 1159†
HIRAYAMA H., 1221
HIROSE K., 1281
HOCHHEISER E., 417
HOEFERT M., 476
HOFFMAN F. O., 481,† 647
HOLM E., 29
HOLUB R. F., 1053
HONG-CHEN D., 1063
HOWARD J., 1101
HOWE J. R., 244†
HUGGINS J. R., 775
HUMBLE C. G., 361
HUNT A. E., 244†
HU S. J., 452
HWANG C. C., 944

IGARASHI S., 455
IMAI T., 214
ING H., 97
IRLWECK K., 448
ISHII H., 1221
IYER P. S., 1315†

JAAKKOLA T., 549
JANKOWSKI J., 229
JAYARAMAN S., 1123
JENSEN L., 1021
JOHNS H. E., 55
JOHNSON J. R., 957†

KAHN B., 45, 321
KANAPILLY G. M., ✠ 845
KASA, A., 214
KATHREN R. L., 967‡
KELLER H. W., 438
KHAN A., 141
KHAN A. H., 225
KINSLOW R., 1154†
KIRCHMANN R., 681, 1069
KITAGAWA T., 455
KIVINIITTY K., 234
KLENK H., 1131
KNAUS R. M., 883
KNOX S. J., 431
KOHN H. W., 1158†
KOIZUMI A., 543
KOMURA, K., 1213
KONDO K., 1221
KONG R. L., 107
KONINGS J., 681
KOO W. K., 452
KOTRAPPA P., 225
KOZÁK K., 193
KRACKE W., 466
KUEI-LIN L., 674
KÜHN W., 1083
KUNZ E., 961†

LAIHO K., 549
LANDA E. R., 385
LANDRY A. J. JR., 1141
LANFRANCHI H. E., 688
LAPPENBUSCH W. L., 503
LAURIA D. C., 133
LAU R. W. M., 939
LEGGETT R. W., 85, 1035
LENNOX A. M., 919
LEPPALUOTO J., 234
LESSARD E. T., 511
LEVIN M., 529
LLOYD M. K., 244†
LONGO I., 73
LUCKEY T. D., 705†
LUETZELSCHWAB J. W., 873
LUNDGREN D. L., 845
LYDAHL E., 529

MAILLE H. D., 587, 599
MAJBORN B., 917
MARKHAM O. D., 793, 1259
MARTIN P., 947
MATTHIES M., 482†
MAYOH K. R., 426
MCBRIDE M. H., 1013
MCCRANIE E., 471

†Indicates Letters to the Editors.
‡Indicates Book Reviews.

McCulloch C. E., 1095
McGinley P. H., 471
McInroy J. F., 839
McLeod K. W., 261, 1205
McLoud T. C., 361
McRee D. I., 315
McVey J. T., 684
Miettinen J. K., 549
Miklos J. A., 1013
Miltenberger R. P., 511
Minakuchi S., 1134
Minato S., 1134
Miyamoto K., 543
Moeller D. W., 1181
Moody J. C., 1296
Morgan M. V., 361
Mori T., 543
Moschella J. J., 1154,† 1155†
Musolino S. V., 511
Mustonen R., 1195
Mussalo-Rauhamaa H., 549

Nagy J., 1150†
Nasman P., 234
Nazaroff W. W., 395
Nilsson K., 29
Nobrega A. W., 133
Noel L., 413
Norment H. G., 239†
North D., 1293

Oftedal P., 1152†
Deram G. L., 1307
Ohlenschlaeger L., 833
Olkis A., 1131
O'Neill R. V., 481†
O'Riordan M. C., 701†

Papastefanov C., 293
Parathasarathy K. S., 915
Paretzke H. G., 482†
Pavlick R. A., 707†
Peggie J. R., 1129
Perry P. M., 438
Peter E., 422
Pfister J., 1123
Philip P. C., 1123
Phillips C. R., 141
Pietrzak-Flis Z., 460
Piltinsgrud H. V., 627
Pincler J. E. III, 261, 1205
Plaček V., 961†
Plato P. A., 1013
Pochin E. E., 1173
Pohland F. G., 45
Pohl E., 704†
Pomroy C., 413
Poston J. W., 371, 709,‡ 1319‡
Prime D., 701†
Pritchard H. M., 1139
Purdue P., 695
Purdy J. A., 669

Quindos L. S., 445

Raabe O. G., 1241
Radwan I., 460
Rafter J. J., 418
Raghavayya M., 225
Rahman A. A., 1095
Raybourn M. S., 107
Reeves J. D., 431
Regan G., 1021
Richards S. R., 607
Ring J. W., 440
Robkin M., 303
Rogers D. W. O., 891
Roland L., 45
Rosenberg I., 407
Rosenblatt L. T., 431
Royle L., 377
Rustgi A. K., 581
Ryan J. L., 928

Sachett I. A., 133
Sachs H. M., 440
Sakanoue M., 455, 1213
Salib S. K., 581
Salvi R. P. C., 269
Samet J. M., 361
Sawitzki G., 480,† 1288
Schery S. D., 801
Schieferdecker H., 833
Schimmerling W., 1101
Schmidt-Martin W., 833
Schuller P., 1083
Scott A. G., 480†
Sedgwick D., 434
Sekine K., 214
Ševc J., 961†
Shaw R. S. T., 434
Shifrine M., 431
Shirvaikar V. V., 1286
Simmons J. A., 607
Simpson R. E., 1158†
Sjoblom G. L., 1314†
Sliney D. H., 1320‡
Šmid A., 961†
Smith H., 434
Soto J., 445
Srivastava G. K., 225
Stather J. W., 919, 1296
Steinhausler F., 704†
Stevenson G. R., 115, 476, 674
Stewart G., 684
Stradling G. N., 434, 919, 1296
Strong J. C., 919, 1296
Sugimura Y., 1281
Sullivan R. E., 1035
Sumner S. A., 919, 1296
Swindle D. L., 335

Taino M., 1221
Taka T., 1311†
Tan K. L., 452
Tatzber F., 448
Ten Haken R. K., 407
Thomas J. M., 657
Thomas R. G., 839
Thomas R. H., 115, 674, 709,‡ 710,‡ 954†

†Indicates Letters to the Editors.
‡Indicates Book Reviews.

THOMAS S. V., 674, 954†
TOKE L. F., 1013
TOWNSEND L. W., 1101
TURGEON K. S., 321
TURNER L. G., 999
TYSON I., 1293

VAN BRUWAENE R., 881, 1069
VAN DER JAGT P. J., 665
VAN KERKOM J., 1069
VILLAR E., 445
VOLF V., 422
VOLLEQUÉ P. G., 707†

WAHLIG B. G., 968‡
WALSH M. L., 55
WATSON E. E., 418
WATSON J. E., JR., 775
WATTS J. R., 1205
WEBSTER E. W., 617
WETHINGTON J. W., 1320‡
WHICKER F. W., 177
WHITE G. C., 177
WILDUNG R. E., 657
WILKENING M. H., 801
WILLIAMS L. R., 85
WILSON J. W., 1101
WILSON O. J., 1129
WITT C. R., 684
WOERWER S., 431
WONG M., 1101

YAMADA Y., 543
YAMAGUCHI CH., 476
YAMAMOTO M., 455, 1213
YOSHIOKA M., 455
YOUNG J. G., 275
YOUNG R. A., 361
YÜLEK G. G., 189

ZACH R., 426

†Indicates Letters to the Editors.
‡Indicates Book Reviews.

SUBJECT INDEX

VOLUME 46, 1984

Accelerators
Neutron leakage around 20-MeV linac 669
Neutron skyshine from proton 115
Radioactivities induced in concrete shielding constituents 1221
Shielding criteria and design for ISABELLE 123
X-ray leakage from medical, remmeter sensitivity to 471
Radiation hazards from cyclotron maintenance 1311
Air Filters
Aerosol penetration through high efficiency 543
Alpha Particles
Measurement of airborne activity, electrostatic precipitator for 801
Microdosimetry in rat and human lung 607
Monitoring in uranium mines and houses, techniques for 1053
Monitoring in U.S. drinking water 503
Spectroscopy analysis system, multidetector 639
Americium-241
Carcinogenicity of bone-seeking 1241
Content in sediments in Nyu Bay, Japan 455
Distribution in Thule, Greenland environs 29
Inhalation by hamsters, effectiveness of Zn-DTPA and Puchel for decorporation of 1296
Removal from rodents, chelating agents for 422
Arkansas
Radionuclide distribution in Dardanelle Reservoir sediments 335
Astatine-211
Retention and absorbed dose in mice tissues 377
Atmosphere (see also Plumes)
Plutonium content in Japan surface air 1281
Atomic Bomb Survivors
Genetic damage 951, 952
Genetic damage, reanalysis 1147, 1149, 1150, 1152
Austria
Radionuclide accumulation in snails 448
Awards
Distinguished Achievement Award, Dade W. Moeller 5
Distinguished Achievement Award, John Seth Laughlin 9
Distinguished Achievement Award, Merril Eisenbud 19
Elda E. Anderson Award, John E. Till 25
Elda E. Anderson Award, Kenneth L. Miller 15
Meritorious Performance Award, H. Wade Patterson 23
Meritorious Performance Award, Ormand L. Cordes 13

Beta Particles
Dosimetry of Godiva IV 561

Birds
Cesium-137 and cobalt-60 distribution in mallard ducks 681
Iodine-129 in waterfowl near Idaho National Engineering Lab 1259
Technetium transfer to eggs in Japanese quail 657
Bismuth-212
Release from burning gas lantern mantles 873
Bones
Radium-226 and uranium in human, from Russia 438
Brachytherapy
Shielding hospital rooms for 617
Building Materials
Effects on cosmic ray exposure rates 1134
Radioactivity and radon exhalation from Finnish 1195
Buildings
Alpha levels in, techniques for determining 1053
Radon concentrations in basements, barometric pressure dependence of 440
Radon concentration seasonal variations in dwellings 1126
Radon passive integrated measurement in 867
Radon progeny concentrations in residences 395
Radon-222 concentrations in energy-efficient homes in New York 999

Californium-249
Carcinogenicity of bone-seeking 1241
Californium-252
Carcinogenicity of bone-seeking 1241
Cancer (see also Neoplasms)
Carcinogenesis
Risk estimates for lung 961,964
Risks in radon spas 702,704,705
Cesium
Sorption by active silica 1095
Cesium-137
Content in animal livers 466
Content in sediments in Nyu Bay, Japan 455
Distribution in mallard ducks 681
Distribution of fallout, in Hawaii 65
Movements in southern coastal plain ecosystem 883
Uptake by plants from long-term fallout 1083
Chelating Agents
Effectiveness of DTPA compared to Puchel 422
Effectiveness of Zn-DTPA and Puchel for inhaled ^{241}Am decorporation in hamsters 1296
Use of Zn-DTPA for plutonium nitrate decorporation from hamsters 919
Chromium-51
Metabolism in locating cows 1069

Cigarettes
Radioactivity in smoke 205
Coal Burning
Versus nuclear energy, radiological risks 73

Cobalt-60
Distribution in mallard ducks 681
Metabolism in lactating cows 1069
Computers
Applications in health physics 1
Cosmic Radiation
Exposure rate perturbations by building materials 1134
Critical Assemblies
Beta and gamma doses in Godiva IV 561
Curium-244
Biokinetics of inhaled $^{244}Cm_2O_3$ in rats, effect of heat treatments 845

Diathermy
Magnetic fields and power outputs from short-wave diathermy equipment 939
DTPA
Effectiveness of DTPA compared to Puchel 422
Effectiveness of Zn-DTPA and Puchel for inhaled ^{241}Am decorporation in hamsters 1296
Use of Zn-DTPA for plutonium nitrate decorporation from hamsters 919

Ecosystems (see also Plants, Soils, Water)
Americium and plutonium distribution in Thule, Greenland 29
Cesium-137 movement in southern coastal plain 883
Einsteinium-253
Carcinogenicity of bone-seeking 1241
Electrets
Performance for passive radon daughter dosimetry 141
Electrons
Fluence to dose equivalent conversion factors for 100 keV to 20 GeV 891
Electromagnetic Radiation
Interim exposure limits to rf fields from 100 kHz to 300 GHz 975
Magnetic fields and power outputs from short-wave diathermy equipment 939
Electrostatic Precipitators
Use for measuring airborne alpha activity 801
Epidemiology (see Human Populations)
Eyes
Infrared radiation exposure levels in Swedish iron and steel industry 529

Fallout
Cesium-137 distribution in Hawaii 65
Cesium-137 plant uptake from long-term 1083
Doses from multiple bursts, forecasting 347
Monitoring in Marshall Islands, environmental and personnel 511
Nuclide accumulation in Austrian snails 448
Nuclide content in animal livers 466
Prediction model 239,242
Finland
Building materials natural radioactivity and radon exhalation 1195
Plutonium absorption in Finnish Lapps 549

Fish
Phosphorus-32 bioaccumulation factor 321
Food Chains
Soil ingestion by cattle as neglected pathway 426
Food Products
Fallout nuclide content in animal livers 466

Gamma Radiation
Absorption by cylindrical tissues 581
Dose equivalent between 4 and 10 MeV, determination of 476
Dose rates in sector-averaged plumes 1286
Dosimetry following accidents using watch jewel thermoluminescence 763
Dosimetry of Godiva IV 561
Dosimetry of, volumetric TLD for internal 371
Fluence to dose equivalent conversion factors calculations up to 20 GeV 891
Gastrointestinal Tract
Plutonium absorption in Finnish Lapps 549
Genetically Significant Dose
Determination for x-ray examinations in Turkey 189
Greenland
Americium and plutonium distributions at Thule 29

Hawaii
Cesium-137 distribution in, fallout 65
Hormesis
Radiation, epidemiology and public health 1158,1159
And air ionization 1139
Biopositive effects of ionizing radiation 702,704,705
Human Populations
Genetically significant dose to Turkey, from x-ray examinations 189
Iodine-131 thyroid uptake from nuclear accidents, use of KI to prevent 1265
Plutonium body burden in Finnish Lapps 549
Radiation dose from environmental releases, reliability of calculations for 1288
Radiation doses from fallout in Marshall Islands 511
Radiation exposure, societal cost factors 706,707
Radiation epidemiology studies, methodologic assessment of 745
Radiation hormesis, low-level 1158,1159
Radiation risk estimates 1311
Radiological risks, coal energy vs nuclear energy 73
Risk assessment from nuclear energy 739

Infrared Radiation
Ocular exposure levels in Swedish iron and steel industry 529
Iodine-125
Accumulation in thyroid glands 234
Origin of, in animal thyroid glands 244

Iodine-129
Content in waterfowl near Idaho National Engineering Lab 1259
Iodine-131
Uptake by thyroid, use of KI to prevent 1265
Ion Beams
Depth-dose relations of ^{20}Ne, in water 1101
Iron-59
Metabolism in lactating cows 1069

Japan
Plutonium in surface air 1281
Plutonium-239 and -240 fallout and dose estimation in Tokai-mura 214
Transuranic elements in Nyu Bay sediments 455

Laser Radiation
Hazards of low-power, ocular 107
Lead
Releases from burning of lead acrylic shielding 464
Lead-210
Determination in natural samples 1131
Lead-212
Monitoring near former thorium processing plant 1021
Release from burning gas lantern mantles 873
Louisiana
Cesium-137 movement in coastal plain ecosystem 883

Man (see also Atomic Bomb Survivors, Human Populations)
Brachytherapy patients, shielding hospital rooms for 617
Health risk from radiation exposures 1035
Metabolic modeling, unified approach to age-dependent 809
Plutonium body and systemic burden following inhalation 833
Plutonium partitioning among internal organs 839
Radiation dose to oocytes from DNA-bound tritium 957
Radiation effects on genetics of 951,952,1113
Radiation hormesis and air ionization 1139
Tritium metabolism following mixed intakes, age-dependent model of 809
Manganese-54
Metabolism in lactating cows 1069
Marshall Islands
Fallout exposure data, protracted 511
Mercury
Metabolic models for methyl and inorganic 695
Microwave Radiation
Dosimetry in rats, whole-body and local 315
Effects on fetal rat body weight 537

Neon-20
Depth-dose relations in water at 670 MeV/amu 1101

Neoplasms
Gene level for two-sequential-stage model for carcinogenesis 1316
Induction by bone-seeking radionuclides 1241
Radiation risk estimates 1311
Radiosensitivity of lymphocytes in vitro, age dependence of 431
Neutron Sources
Characteristics of D_2O-moderated ^{252}Cf 97
Gamma output from Am-241/Be, maintaining high 474
Neutrons
Doses to personnel in therapy facilities 407
Dosimetry from medical accelerators, remmeter reliability for 471
Leakage around 20-MeV linac 669
Skyshine from proton accelerators 115
New York
Radon-222 concentrations in energy-efficient homes 999
Non-ionizing Radiation
Infrared radiation exposure levels in Swedish iron and steel industry, ocular 529
Interim guidelines for exposure to rf fields from 100 kHz to 300 GHz 975
Interim guidelines on exposure to airborne ultrasound 969
Magnetic fields and power outputs from short-wave diathermy equipment 939
Microwave dosimetry in rats 315
Nuclear Attack
Doses from multiple bursts, forecasting 347
Nuclear Facilities
Contributions of fuel separations facility to Pu content of tobacco crop 1205
Iodine-129 in waterfowl near Idaho Nuclear Engineering Lab 1259
Ions in spent-fuel storage pool water, predominance of positive 1301
Plutonium content in vegetable crop grown near fuel separations facility 261
Radioactivity near former thorium and rare earth extraction plant, airborne 1021
Risk assessment and public policy 739
Soils from former radium processing sites, characterization of 385

Occupational Exposure
Analysis in neutron therapy facilities 407
Dose measurement in amang upgrading plants 452
Doses to dial painters and radioluminous timepiece assemblers 1157,1158
Doses to hands at nuclear power plants, monitoring regulations 775
Film badge location for fluoroscopy 1314
Gamma dosimetry following accidents using watch jewel thermoluminescence 763
Intake limits and significance of breast as explicitly represented tissue 283
Iodine-125 accumulation in thyroid glands 234
Measurement of effective dose equivalent in reactor environs 55
Measurements on video display terminals 413

Ocular infrared levels in Swedish iron and steel industry 529
Personnel dosimeters for measuring, criteria for issuing 763
Radon progeny levels in European mines 701
Respiratory abnormalities in uranium miners 361
Risk assessment for cyclotron maintenance 1311
Safety guidelines in nuclear medicine department 1293
Tritium internal contamination in Netherlands universities 665
Uranium dioxide inhalation, radiological implications 434
Xenon-133 hazards in nuclear medicine labs 627

Phosphates
Ore processing plant, ^{210}Po concentrations around 793
Phosphorus-32
Accumulation factor for edible fish tissue 321
Retention and excretion following ^{32}P ATP injection 209
Photographic Film Dosimeters
Positioning for fluoroscopist 1314,1315
Plants
Cesium-137 uptake from long-term fallout 1083
Plutonium content of vegetables, grown near nuclear facility 261
Plutonium content of tobacco, contribution of fuel separations facility to 1205
Rainsplash as contamination mechanism 177
Technetium uptake 647
Plumes
Gamma dose rates in sector-averaged 1286
Noble gas radionuclide concentrations in power reactor 783
Oxidation rate of airborne tritium 1307
Body and systemic burden in man following inhalation 833
Plutonium
Content in Japan surface air 1281
Content in tobacco crop, contributions of fuel separations facility to 1205
Content in vegetable crops grown near nuclear facility 261
Partitioning among internal organs 839
Plutonium-238
Absorption in rat GI tract, effect of phytate and citrate on 693
Content in sediments in Nyu Bay, Japan 455
Removal from rodents, chelating agents for 422
Plutonium-239
Body burden in Finnish Lapps 549
Carcinogenicity of bone-seeking 1241
Content in animal livers consumed by man 466
Content in sediments in Nyu Bay, Japan 455
Content relative to ^{240}Pu in samples, measurement based on Lx/ -ray ratio 1213
Distribution in Thule, Greenland environs 29
Fallout and dose estimation in Tokai-mura, Japan 214
Monitor for, radon-immune 217
Removal from rodents, chelating agents for 422

Plutonium-240
Body burden in Finnish Lapps
Content in animal livers consumed by man 466
Content in sediments in Nyu Bay, Japan 455
Content relative to ^{239}Pu in samples, measurement based on Lx/α-ray ratio 1213
Distribution in Thule, Greenland environs 29
Fallout and dose estimation in Tokai-mura, Japan 214
Plutonium Nitrates
Decorporation from hamsters using Zn-DTPA 919
Polonium-210
Concentrations around waste disposal area and phosphate ore processing plant 793
Power Reactors
Accidents at, use of ki to prevent ^{131}i thyroid uptake 1265
Dose equivalent in environs of, measurement of effective 55
Emergency response to PWR accidents, in-plant decision criteria for 763
Fuel storage pools, predominance of positive ions in 1301
Plume noble gas radionuclide concentrations 783
Radiation doses to hands, monitoring regulations 775
Radiation levels near Three Mile Island, TLD system for measuring 1013
Radioactivity from coal-fired 293
Radiological risks, comparison of nuclear with coal-fired plants 73
Radiological risks of coal-fired 73
Radionuclide distribution in reservoir sediments near 335
Potassium-40
Content in Finnish building materials 1195
Potassium Iodide
Use to prevent thyroid uptake from nuclear accidents 1265
Proportional Detectors
Reliability as remmeter for medical accelerator neutrons 471
Protactinium-231
Determination in biological samples 928
Protons
Dose equivalent, Moyer model parameter data for 954
Dose equivalent, Moyer model parameter data variation for 674
Puchel
Effectiveness of DTPA compared to Puchel 422
Effectiveness of Zn-DTPA and Puchel for inhaled ^{241}Am decorporation in hamsters 1296
Radiation (see also Alpha Particles, Beta Particles, Cosmic Radiation, Electrons, Electromagnetic Radiation, Fallout, Gamma Radiation, Infrared Radiation, Ion Beams, Laser Radiation, Microwave Radiation, Neutrons, Protons, X Radiation)
Radiation Detectors (see also Electrets, Photographic Film Dosimeters, Proportional Detectors, Scintillation Detectors, Thermoluminescent Dosimeters)
Criteria for issuing personnel dosimeters 915
Radiation Doses (see also Genetically Significant Dose, Occupational Exposure)
Assessment from radionuclide release to environment, reliability of 1288
Cost factors of, societal 706,707
Estimation of organ doses in diagnostic x-ray procedures 228
Estimation of, validity of Monte Carlo results for 480,481,482
Forecasting for fallout from multiple bursts 347

Genetic effects of, perspective on 1113
Health effects of, methodologic assessment of epidemiology studies 745
Health risks from low-level assessment of 1035
Hormesis and air ionization 1139
Hormesis from ionizing 702,704,705
Hormesis of low-level 1158,1159
Model predictions of, reliability of 85
Moyer model parameter data variations for protons 674
Moyer model parameter variations for protons 954
Quality factor for low doses of high-LET 237
Standards for, proposed 40 CFR Part 60 1313,1314

Radiation Protection
Control measures for indoor radon progeny, cost evaluation of 1181
Decision criteria for off-site emergency response to reactor accidents 763
Interim guidelines for exposure to rf fields from 100 kHz to 300 GHz 975
Interim guidelines on exposure to airborne ultrasound 969
Hazard measurements for ^{133}Xe in nuclear medicine labs 627
Hazards from cyclotron maintenance 1311
Safety guidelines in nuclear medicine department 1293
Standards for radionuclides, proposed 40 CFR Part 60 1313,1314
Risk estimates 1311
Use of KI to prevent ^{131}I thyroid uptake 1265

Radiation Units
Definition of sievert 479

Radioactive Wastes
Disposal area for solid, ^{210}Po concentrations around 793
Incineration of low-level, environmental impact of 1123
Iodine-129 in waterfowl muscle from leaching ponds 1259
Nuclide leaching from, model for estimating health effects of 303
Radionuclide behavior in sanitary landfills 45

Radionuclides
Accumulation in Austrian snails 448
Concentrations in human tissue, model prediction reliability 85
Distribution in Dardanelle Reservoir sediments 335
Inhalation of aerosols of different sizes, total transformations in organs following 587
Intake limits and significance of breast as explicitly represented tissue 283
Release to environment, reliability of calculations to assess dose to man from 1288
Uptake by man, age-dependent metabolic modeling 809

Radium-224
Release from burning gas lantern mantles 873

Radium-226
Carcinogenicity of bone-seeking 1241
Content in Finnish building materials 1195
Content in human bone from Russia 438
Occurrence in U.S. drinking water 503

Radium-228
Carcinogenicity of bone-seeking 1241
Release from burning gas lantern mantles 873

Radon
Carcinogenic risks in spas 702,704,705
Concentrations in basements, barometric pressure dependence of 440
Concentrations in dwellings, seasonal variations in 1126
Emanation from Finnish building materials 1195
Emanation measurements, activated charcoal canisters for 1129
Measurement of indoor, passive integrated 867
Radon-220
Monitoring near former thorium processing plant 1021
Radon-222
Concentration in energy-efficient homes in New York 999
Concentrations in Spanish cave 445
Radon Progeny
Alpha energies of, techniques for determining 1053
Attachment of thoron-decay products in thoron box 933
Carcinogenic risks in spas 702,704,705
Concentrations in dwellings, seasonal variation in 1126
Concentrations in European mines 701
Concentrations in residences, optimizing technique for measuring 395
Control measures for indoor, cost evaluation of 1181
Detection system for low-level 225
Dosimetry of, electrets for passive 141
Measurement of charged and unattached fractions of, in uranium mines 480
Respiratory System
Abnormalities in uranium miners 361
Cancer risk estimates for lungs 961,964
Microdosimetry of alpha-irradiated lung 607
Radioactive aerosol inhalation, total transformations in organs following 587
Yellowcake aerosol lung clearance in rats 859
Rodents
Actinide removal from, effectiveness of DTPA and Puchel for 422
Americium-241 decorporation from hamsters using Zn-DPTA and Puchel, inhaled 1296
Astatine-211 retention and absorbed dose in mice tissues 377
Body weight of fetal rats after microwave irradiation, decreased 537
Curium-244 oxide biokinetics in rats following inhalation and heat treatment 845
Microwave dosimetry in rats 315
Plutonium nitrate decorporation from hamsters using Zn-DTPA 919
Plutonium-238 uptake by GI tract of, effect of phytate and citrate on 693
Tritium distribution and excretion following glass microballoon fragment instillation in rats 599
Uranium dioxide subcutaneous implantation in rats, deposition and toxicity of 688
Yellowcake aerosol lung clearance in rats 859
Ruminants
Radionuclide metabolism in lactating cows 1069
Soil ingestion by cattle as neglected pathway 426
Russia
Radium-226 and uranium in human bone 438

Saudia Arabia
Radioactivity of potable waters in, natural 947

Scintillation Detectors
Reliability as remmeter for medical accelerator neutrons 471
Vial decontamination by Freon 688
Shielding
Description of ISABELLE 123
Design for diagnostic x radiation based on photon attenuation empirical model 958,960
Design, regulatory, and cost-benefit factors for brachytherapy patients 617
Lead releases from burning of lead acrylic 464
Shielding Materials
Radioactivities in concrete constituents irradiated by high-energy particles, induced 1221
Snails
Radionuclide accumulation in Austrian 448
Soils
Characterization of, from former radium processing sites 385
Effects on ^{137}Cs plant uptake from long-term fallout 1083
Ingestion by cattle as neglected pathway 426
Strontium-90 transport in arid climate 1136
Technetium behavior in 647
Spain
Radon-222 concentrations in Altamira Cave 445
Strontium-90
Ingestion of, annual dose equivalents from 211
Transport in soil profile in arid climate 1136
Sweden
Ocular exposure to infrared radiation in iron and steel industry 529

Technetium
Transfer to eggs in Japanese quail 657
Uptake in plants 647
Technetium-99
Dosimetry and toxicity considerations 418
Thermoluminescent Dosimeters
Development of volumetric, for internal dose verification 371
Performance testing for Three Mile Island environs 1013
Preparation and properties of $CaSO_4$:Dy 269
Properties of LiF(Mg,Cu,P) 1063
Radiation effects on $CaSO_4$:Dy, UV and visible 275
Thermoluminescence increase in LiF by brief preheating 417
Use for measuring effective dose equivalent in reactor environs 55
Thorium-232
Content in Finnish building materials 1195
Thorium-234
Removal from rodents, comparison of chelating agents for 422
Thyroid Blocking (see Human Populations, Iodine-125, Iodine-131)
Tissues
Gamma absorption in cylindrical 581
Tritium
Concentration levels in environment, reconstruction from wine analysis 193
Distribution and excretion from rats following instillation of glass microballoon fragments 599

Dose estimation from hair and urine concentrations 460
Excretion in urine, ambient temperature dependence of 1155
Excretion in urine following multiple contaminations 1154
Internal contamination of radiological workers in Netherlands universities 665
Metabolism following mixed intakes, age-dependent model of 924
Oxidation rate of airborne plumes of, effect of release height and atmospheric stability on 1307
Radiation dose to oocytes from DNA-bound 957

Turkey
Genetically significant dose, determination for x-ray examinations 189

Ultrasound
Interim exposure limits for airborne 969

Uranium
Content in human bone from Russia 438
Determination by chemical stripping and α spectrometry 133

Uranium-234
Inhalation as UO_2, accumulation and excretion 434

Uranium-235
Inhalation as UO_2, accumulation and excretion 434

Uranium-238
Inhalation as UO_2, accumulation and excretion 434

Uranium Compounds
Deposition rates of yellowcake aerosols 165
Dissolution of yellowcake in vitro and bioassay interpretation 151
Lung clearance of yellowcake aerosols in rats 859

Uranium Mines
Alpha levels in, techniques for determining 1053

Uranium Oxides
Implantation of UO_2 in rats, distribution and toxity of 688

Video Display Terminals
Low background radiation measurements 413

Water
Alpha activity and radium occurrence in U.S. drinking water 503
Neon-20 depth-dose relations at 670 MeV/amu 1101
Radioactivity of potable, in Saudi Arabia 947

X Radiation
Dose equivalent between 4 and 10 MeV, determination of 476
Dose measurement in fluoroscopy 1315
Doses in diagnostic procedures 228
Exposure controls in diagnostic radiology 1149
Fluence to dose equivalent conversion factor calculations from 11 keV upward 891
Genetically significant dose in Turkey 189
Leakage and scattered dose equivalents during 25-MV radiation treatments 944
Measurements on video display terminals 413
Shielding design based on photon attenuation empirical model 958,960

Xenon-133
Hazards associated with syringes for 1141
Hazard measurements in nuclear medicine labs 627